

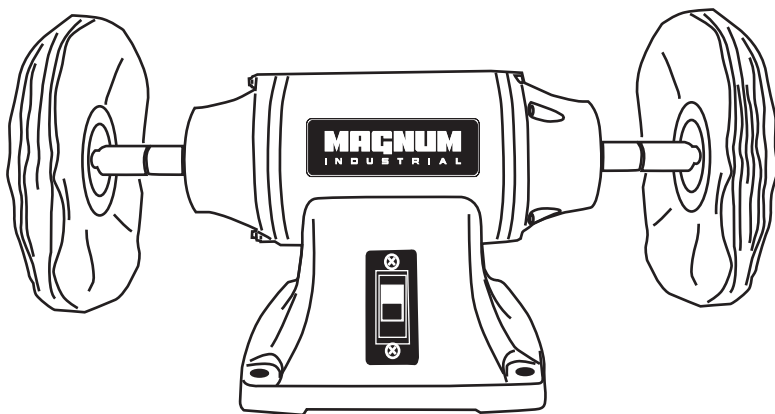
MAGNUM

INDUSTRIAL

MODEL NO.: MI-14150 \ MI-14350



MI-14350_8" POLISHER GRINDER



MI-14150_6" POLISHER GRINDER

OPERATING MANUAL

Description

Buffers are equipped with a totally enclosed ball bearing motor. Armature assembly is dynamically balanced for smooth operation. Motor housing is compact so long pieces of work can press against both buffing wheels without touching the motor frame. Buffing wheels are included

The 6" Buffer, MI-14150, operates at a single speed of 3600 rpm. The 8" Buffer, MI-14350, operates at 3600 rpm and also can be operated at any speed from 2000 to 3300 rpm.

Unpacking

Check for shipping damage. If damage has occurred, a claim must be filed with the carrier immediately. Check for completeness. Immediately report missing parts to dealer.

Specifications

Model	HP	RPM	AMPS	Volts	Hz
MI-14150	1/2	3600	5.0	115	60
MI-14350	3/4	3600	7.0	115	60

MI-14350 Variable

speed range2000-3300; 3600 RPM

SIZES

MI-14150: 6" Dia., 1/2" Bore

MI-14350: 8" Dia., 5/8" Bore

General Safety Information

WARNING For your own safety, read operating instructions manual before operating tool.

BE PREPARED FOR JOB

1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
2. Wear protective hair covering to contain long hair.
3. Wear safety shoes with non-slip soles.
4. Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
5. Wear face mask or dust mask if operation is dusty.
6. Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

1. Keep work area clean. Cluttered work areas invite accidents.
2. Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
3. Work area should be properly lighted.
4. Proper electrical plug should be plugged directly into properly grounded, three-prong receptacle.
5. Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
6. Keep visitors at a safe distance from work area.
7. Keep children out of the workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL SHOULD BE MAINTAINED

1. Always unplug tool prior to inspection.
2. Consult manual for specific maintaining and adjusting procedures.
3. Keep tool clean for safest operation.
4. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before turning machine on.
5. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their

intended function.

6. Check for damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may affect a tool's operation.
7. Do not perform makeshift repairs. (Use the parts list to order repair parts.)

KNOW HOW TO USE TOOL

1. Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
2. Disconnect tool from power when changing accessories such as buffing wheels and the like.
3. Avoid accidental start-up. Make sure that the switch is in the OFF position before plugging in.
4. Do not force tool. It will work most efficiently at the rate for which it was designed.
5. Keep hands away from moving parts and buffing surfaces.
6. Never leave a tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
7. Do not overreach. Keep proper footing and balance.
8. Never stand on tool. Serious injury could occur if tool is tipped over.

General Safety Information (Continued)

9. Know your tool. Learn the tool's operation, application and specific limitations.
10. Use recommended accessories. Understand and obey all safety instructions supplied with accessories. The use of improper accessories may cause risk of injury to persons.
11. Do not over tighten wheel nut. Use only flanges supplied with the buffer.
12. Handle the workpiece correctly.

Assembly

Refer to Figures 3 and 4.

Buffer comes completely assembled with hex nuts, wheel flanges and spacers (Ref. Nos. 1, 2, 3 and 11) packed separately. One spiral sewn wheel and one soft wheel are included.

IMPORTANT:

Do not attempt assembly if parts are missing. Use this manual to order repair parts.

INSTALL BUFFING WHEELS

To install buffing wheels on the buffer:

1. Remove plastic protective sleeves from armature shaft.
2. Slide spacer (Ref. No. 3) onto armature shaft.
3. Slide inner wheel flange (Ref. No. 2) onto armature shaft.
4. Slide in buffing wheel on to the armature shaft and butt it against the inner wheel flange.
5. Slide in the outer wheel flange and butt the flat side of the flange against the buffing wheel.
6. Tighten hex nut (Ref. No. 1) on to the armature shaft. Make sure the buffing wheel is firmly held in place and the hex nut is snug against the outer wheel flange. Use additional spacers (not supplied) if required.
7. Repeat steps 1-6 to install buffing wheel on the other side of the buffer.

Installation

MOUNT BUFFER

1. Mount buffer to a solid horizontal surface (hardware not provided). If mounted to metal pedestal, align mounting holes with corresponding holes in pedestal. Insert a 1/4"-20 x 14" hex head bolt with flat washer through base of buffer. From bottom of pedestal, place a 1/4" flat washer and 1/4"-20 hex nut onto the bolt. Tighten only until space between buffer base and pedestal is 1/8". Using second nut on each bolt, jam tighten against the first to prevent loosening by vibration.
2. To mount buffer to wooden bench top, use 1/4" x 14" wood screws with flat washers beneath heads. Tighten screws until space between buffer base and bench top is 1/8".

GROUNDING INSTRUCTIONS

WARNING Improper connection of equipment grounding conductor can result in the risk of electrical shock. Equipment should be grounded while in use to protect operator from electrical shock.

Check with a qualified electrician if grounding instructions are not understood or if in doubt as to whether the tool is properly grounded.

This buffer is equipped with an approved 3-conductor cord rated at 300V and a 3-prong, grounding type plug (See Figure 1) for your protection against shock hazards.

Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle (See Figure 1).

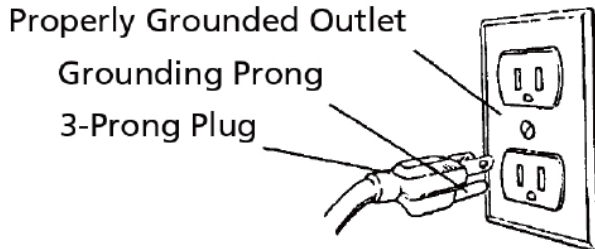


Figure 1-3-Prong Receptacle

Do not remove or alter grounding prong in any manner. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

WARNING

Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician. Inspect tool cords periodically, and, if damaged, have repaired by an authorized service facility.

Green (or green and yellow) conductor in cord is the grounding wire. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with National Electric Code and local codes and ordinances. A

WARNING This work should be performed by a qualified electrician.

Installation (Continued)

A temporary 3-prong to 2-prong grounding adapter (See Figure 2) is available for connecting plugs to a two it is properly grounded.

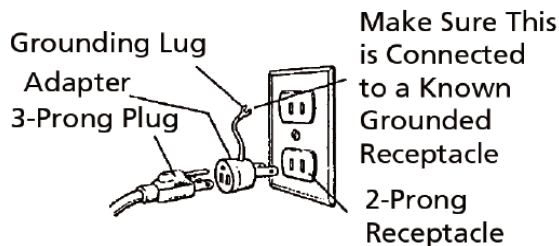


Figure 2-2-Prong Receptacle

Do not use a 3-prong to 2-prong grounding adapter unless permitted by local and national codes and ordinances. (A 3-prong to 2-prong grounding adapter is not permitted in Canada.) Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system. Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

1. The use of any extension cord will cause some drop in voltage and loss of power.
2. Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
3. Running the unit on voltages which are not within $\pm 10\%$ of the specified voltage may cause overheating and motor burnout.
4. Use the table to determine the minimum wire size (A.W.G.) extension cord.
5. Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
6. If the extension cord is worn, cut or damaged in any way, replace it immediately.

EXTENSION CORD LENGTH

Wire Size A.W.G.

Up to 25 ft. _____ 18

25 to 50 ft. _____ 16

NOTE: Using extension cords over 50 ft. long is not recommended.

ELECTRICAL CONNECTIONS

WARNING All electrical connections must be performed by a qualified electrician. Make sure tool is off and disconnected from is mounted, power source while mc connected, reconnected or anytime wiring is inspected.

Motor is assembled with approved, 3-conductor cord to be used at 120 volts only. Buffers are prewired at the factory for 120 volts.

Operation

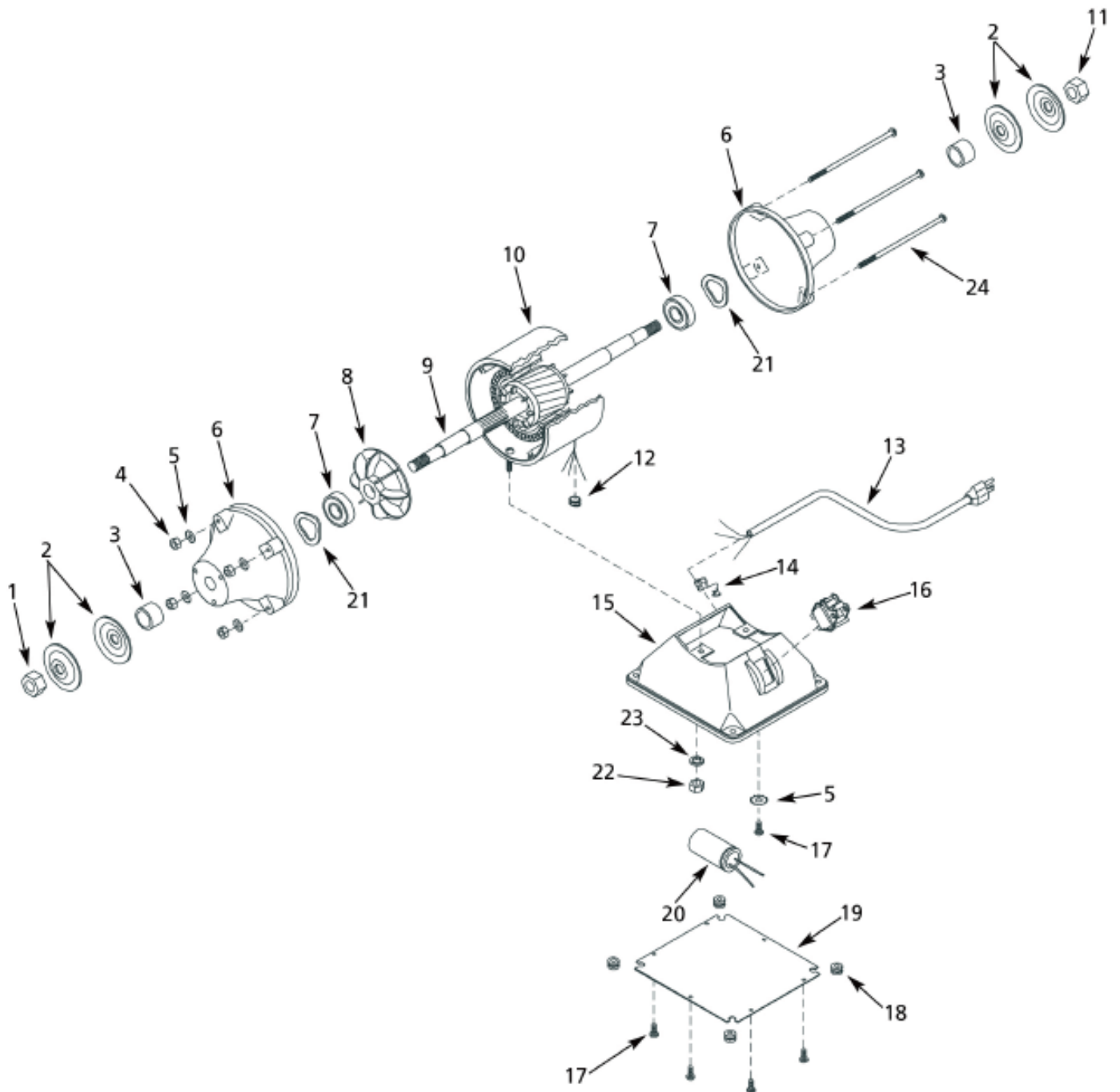
WARNING Always wear safety glasses complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation. Safety glasses are available through your Grainger catalog.

1. Keep a steady, moderate pressure on the work and keep it moving at an even pace for smooth buffing.
2. Pressing too hard overheats the motor and prematurely wears down the buffing wheels.
3. The buffing wheel should rotate into object being buffed.
4. Dip work into a coolant regularly to prevent overheating. Overheating can weaken metals.

Maintenance

1. Replacement wheels must have a minimum rated speed of 3600 RPM.
2. Maximum wheel diameter is 6" for MI-14150 and 8" for MI-14350.
3. Disconnect unit from power source before replacing buffing wheels or before performing any maintenance work.
4. The threads on the right side of the buffer (facing unit) are right hand; threads on the left side are left hand. Hold the wheels firmly to loosen the
5. Make sure hex nuts are tight and snug against the outer wheel flange prior to restarting buffer.

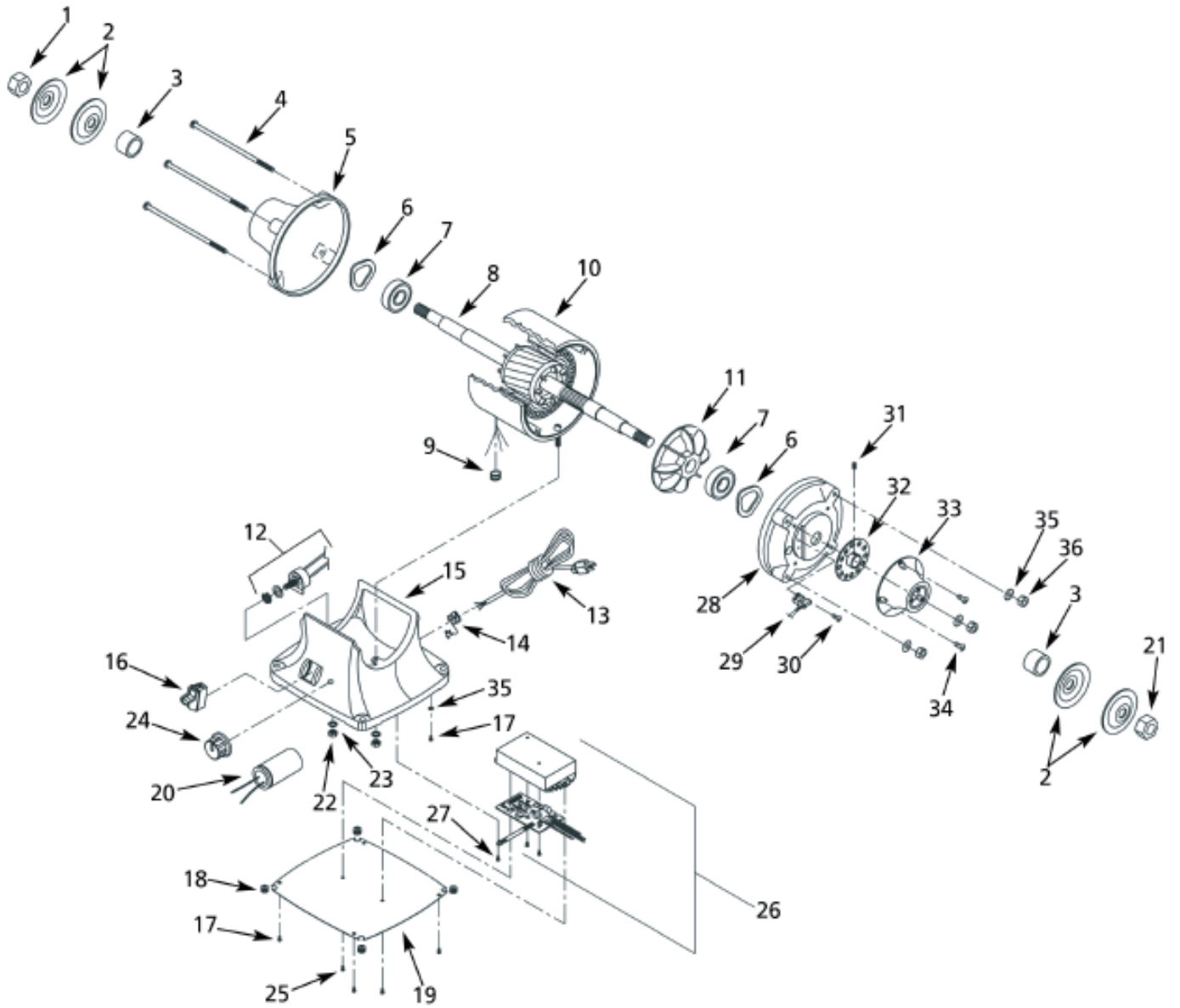
PARTS LIST FOR MI-14150



PARTS LIST FOR MI-14150

ITEM NO.	DESCRIPTION	Q'ty
MI-14150-01	1/2"-12 Hex nut (LH Thread)	1
MI-14150-02	Wheel flange	4
MI-14150-03	Spacer	2
MI-14150-04	5-0.8mm Hex nut	4
MI-14150-05	#10 Serrated washer	5
MI-14150-06	Endshield	2
MI-14150-07	6202ZZ Bearing	2
MI-14150-08	Motor fan	1
MI-14150-09	Armature	1
MI-14150-10	Stator with housing	1
MI-14150-11	1/2"-12 Hex nut	1
MI-14150-12	Grommet	1
MI-14150-13	Line cord	1
MI-14150-14	Strain relief	1
MI-14150-15	Base	1
MI-14150-16	Switch with key	1
MI-14150-17	#10-24x1/4" Pan head screw	7
MI-14150-18	Bumper	4
MI-14150-19	Cover	1
MI-14150-20	Capacitor	1
MI-14150-21	Wavy washer	2
MI-14150-22	1/4"-20 Hex nut	2
MI-14150-23	1/4" Lock washer	2
MI-14150-24	5-0.8x200mm Flange screw	4
▲	Spiral sewn buffing wheel	1
▲	Soft buffing wheel	1
Recommended Accessories		
▲	Cast iron tool stand	1
▲	Cotton buffing wheel	1
▲	Soft buffing wheel	1

PARTS LIST FOR MI-14350



PARTS LIST FOR MI-14350

ITEM NO.	DESCRIPTION	Q'ty
MI-14350-01	5/8"-12 Hex nut (LH Thread)	1
MI-14350-02	Wheel flange	4
MI-14350-03	Spacer	2
MI-14350-04	5-0.8mm x Flange screw	4
MI-14350-05	Endshield	1
MI-14350-06	Wavy washer	2
MI-14350-07	6202ZZ Bearing	2
MI-14350-08	Armature	1
MI-14350-09	Grommet	1
MI-14350-10	Stator with housing	1
MI-14350-11	Motor fan	1
MI-14350-12	Variable switch	1
MI-14350-13	Line cord	1
MI-14350-14	Strain relief	1
MI-14350-15	Base	1
MI-14350-16	Switch with key	1
MI-14350-17	#10-24x1/4" Pan head screw	5
MI-14350-18	Bumper	4
MI-14350-19	Cover	1
MI-14350-20	Capacitor	1
MI-14350-21	5/8" - 11 Hex nut	1
MI-14350-22	1/4"-20 Hex nut	2
MI-14350-23	1/4" Lock washer	2
MI-14350-24	Knob	1
MI-14350-25	4-1.4 x 8 mm Thread forming screw	2
MI-14350-26	Circuit board assembly	1
MI-14350-27	4-0.7 x 8 mm Thread forming screw	1
MI-14350-28	Endshield	1
MI-14350-29	Sensor	1
MI-14350-30	3-0.5 x 6 mm Pan head screw	2
MI-14350-31	4-0.7 x 5 mm Set screw	1
MI-14350-32	Plate	1
MI-14350-33	Endshield cap	1
MI-14350-34	#10-24 x 3/8" Flange screw	4
MI-14350-35	#10 Serrated washer	5
MI-14350-36	5-0.8 mm Hex nut	4
Recommended Accessories		
▲	Cast iron tool stand	1
▲	Cotton buffing wheel	1
▲	Soft buffing wheel	1